



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

C/K

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,064	10/16/2003	Francois Gauthier	A01457	8923

21898 7590 10/20/2005
ROHM AND HAAS COMPANY
PATENT DEPARTMENT
100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399

EXAMINER

ALSTRUM ACEVEDO, JAMES HENRY

ART UNIT	PAPER NUMBER
----------	--------------

1616

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,064

Applicant(s)

GAUTHIER ET AL.

Examiner

James H. Alstrum-Acevedo

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☒ Claim(s) 4 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date April 30, 2004.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

203

DETAILED ACTION

Claims 1-10 are pending.

Specification

Claim 4 is objected to because of the following informalities: it appears that the word "is" should be inserted between the words ---"agent"--- on line 1 and ---"selected"--- on line 2 of said claim. Appropriate correction is required.

The use of the trademarks TEXANOL[®] (page 7, line 26) and PERAMIN SRA[®] (page 7, line 32) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 5 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "hydrophobes" and "derivatives" in claims 5 and 10 are terms, which renders the claim indefinite. The terms "hydrophobes" and "derivatives" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of

ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term hydrophobe is not defined in the specification and therefore one of ordinary skill in the art at the time of the instant invention would not be able to ascertain which chemical compounds were considered 'hydrophobes' capable of forming adducts with polyethylene glycol. It is unclear whether "hydrophobe" refers solely to hydrocarbon containing species or if it encompasses other species such as perfluorocarbons, which a skilled artisan would expect to exhibit hydrophobic properties. The term "derivatives" in reference to fatty alcohols is also undefined. One of ordinary skill in the art would not be able to ascertain accurately, which modified fatty alcohol compounds Applicant was claiming with the term "fatty alcohol derivatives." It is unclear whether "fatty alcohol derivatives" is meant to refer to specific modified fatty alcohols or whether it is meant to encompass any and all possible compounds resulting from the chemical modification of a fatty alcohol.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehmann et al. (U.S. Patent No. 4,644,031, reissued as Re. 35,200).

Applicant's claims are drawn to water-soluble tablet coatings comprising (a) at least one film-forming polymer having acidic functional groups and a degree of neutralization ranging

Art Unit: 1616

from 30-100 % by weight, based on the weight of the polymer and (b) at least one film-modifying agent, including (claim 1); wherein the film-forming polymer is prepared from one or more monomers selected from the group consisting of acrylic acid, methacrylic acid, itaconic acid, and hydroxyalkyl(meth)acrylic acid, maleic acid, alkyl (meth)acrylates, hydroxyalkyl(meth)acrylates and styrene (claim 2); wherein the Tg of the film-forming polymer ranges from 35 to 120 °C (claim 3); wherein the film modifying agent is selected from the group consisting of plasticizer, a coalescent, a dispersant and combinations thereof (claim 4); and wherein the film modifying agent is selected from the group consisting of triethyl citrate, polyethylene glycol, polypropylene glycol, dipropylene glycol, esters of polyalkylene glycols, polyalkylene glycol adducts of hydrophobes, fatty alcohols, fatty alcohol derivatives, alkyl phenols, trimethylol propane, neopentyl glycol, hexane diol, alkyl lactates, ethyl lactate, alkyl citrates, alkyl gluconates PERAMIN SRA[®] and combinations thereof (claim 5).

Independent claim 6 is drawn to methods of making water soluble tablet coatings comprising the steps of (a) applying a film forming polymer in liquid form to a tablet surface; and (b) drying the film to form a protective film coating around the tablet, wherein the film forming polymer formulation comprises at least one water soluble, film-forming polymer having acidic functional groups and a degree of neutralization ranging from 30 to 100 weight percent, based on the weight of polymer and at least one film modifying agent. Dependent claims 7, 9, and 10 introduce the limitations of claims 2, 4, and 5, respectively, regarding the components used to make the water-soluble tablet coating. Dependent claim 8 requires that an excess of neutralizing base is required for water-soluble polymers to coat effervescent tablets.

The term “excess of neutralizing base” is understood to mean more neutralizing base than is required to neutralize completely (i.e. 100 %) all of the carboxylic acid functional groups of the film-forming polymers.

Lehmann discloses aqueous dispersions of a coating agent for pharmaceuticals, that are resistant to gastric juice and in which the sustained release properties of the pharmaceutical composition can be shifted to higher pH values if the pharmaceutical dosage forms are coated with an aqueous coating dispersion which contains, as a coating composition or binder, dispersed latex particles of (A) a **polymer containing carboxyl groups which is water soluble between pH 5 and pH 8**, and (B) a water insoluble film forming polymer, the ratio of the total weights of the latex particles (A) and (B) being between 60:40 and 5:95 (column 2, lines 26-34).

Lehmann discloses that aqueous dispersions of the coating composition are suitable for the manufacture of pharmaceutical dosage forms which are to pass through the stomach unaltered and are to release their active ingredient quickly in a narrowly limited portion of the intestine characterized by its pH value (column 3, lines 32-36).

Lehmann states that the polymer containing carboxyl groups **must be water-soluble at least in a portion of the pH range between pH 5 and pH 8** but may be water insoluble in the lower portion of that range. To be dispersible in water, it must be water insoluble at least below pH 5 (column 3, lines 45-48).

Lehmann discloses that the polymer containing carboxyl groups may be prepared from vinyl and vinylidene monomers wherein a portion of said monomers (10-70 wt %) contain at least one carboxylic acid functional group, including the following: **acrylic acid, methacrylic acid, maleic acid, and itaconic acid**. The remaining portion of the vinyl monomers is free of

Art Unit: 1616

carboxyl groups and may include esters of the carboxylic acids named, and particularly of alkyl esters having from 1 to 8 carbon atoms in the alkyl radical or styrene (column 3, lines 59-67 and column 4, lines 1-6).

Lehmann states that the amount of the monomers containing carboxyl groups should in each case be such that the polymer is water soluble in the range from pH 5 to pH 8 and that the active ingredient is released at the desired pH value (column 4, lines 12-13).

Lehmann states that the minimum film-forming temperature of the coating composition made by mixing the starting lattices of polymers (A) and (B) is affected by the mixing ratio of (A) to (B) and if too high can be reduced by the addition of film-forming aids which either remain in the film as plasticizers or evaporate as volatile solvents during drying. Examples of such film forming aids are ethylene glycol or propylene glycol, glycerine, esters of citric acid, and polyethylene glycols (column 5, lines 44-53). The polymers of group (A) are water-soluble and those of group (B) are not. The minimum film-forming temperature conforms to DIN 53787 of not over 60 °C and is usually satisfied when the dynamic glass-transition temperature is not over 80 °C (column 4, lines 60-67).

Lehman discloses that the coating compositions of his invention may be used to coat tablets (column 6, line 18-19).

Lehmann discloses that the coating methods correspond to those used with conventional dispersions for coating pharmaceutical dosage forms. Pan coating methods in which the coating is poured or sprayed onto the rotating dosage forms (i.e. applied to the tablet) either in portions or continuously are preferred. Usually warm air is then blown onto them to dry them (column 6, lines 23-30).

Lehmann discloses examples for the coating of pharmaceutical tablets using the coating compositions of his invention in water in the presence of a source of basic hydroxide ions (i.e. talc) (Examples 1-3).

Although Lehmann does not explicitly state a range for the degree of neutralization of the acid functional groups of the water-soluble polymers of component (A), it is the examiners positions that these polymers inherently meet the limitation of a degree of neutralization ranging from 30-100 wt %, based upon the weight of the polymer. The carboxylic acid containing monomers and therefore polymers made from said monomers are weak acids and will dissociate in water to yield polymers whereby the acid functional groups have been neutralized by water acting as a base.

Regarding the limitations of claim 8 requiring an excess of neutralizing base when coating effervescent tablets, Applicant needs to show the criticality of using an excess of base, wherein the term "excess" implies that all the carboxylic functional groups of the film-forming polymer are neutralized. If all the acidic functional groups of the film-forming polymer are neutralized, then the use of excess neutralizing base is not critical in the coating of effervescent tablets.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehmann et al. (U.S. Patent No. 4,644,031, reissued as Re. 35,200).

Applicant's claims have been described *supra*.

The disclosures of Lehmann et al. have been set forth above.

This 103 rejection is being made in view that if the 102(b) rejection above (Lehmann et al.) does not anticipate polymers having a degree of neutralization ranging from 30-100 wt%, based on the weight of the polymer that this limitation is obvious.

It would have been obvious to a person of ordinary skill in the art at the time of the instant invention to prepare a coating composition based on Lehmann's disclosure comprised of water-soluble polymers and added base to neutralize the carboxylic acid functional groups, because Lehmann disclosed that these polymers were soluble at pH values ranging from 5 to 8. A skilled artisan knowing that Lehmann's water-soluble polymers were soluble in water between pH 5-8 would know how to appropriately modify the coating composition pH by the addition of base to neutralize the carboxylic acid functional groups of said polymers and obtain a medium with the appropriate pH value. A person of ordinary skill in the art would have had a reasonable expectation of successfully using Lehmann's polymers thus modified in coating composition,

because Lehmann disclosed that these polymers were water soluble between a pH of 5-8 and could be used to coat tablets (see Examples 1-3).

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zagnoli (U.S. Patent No. 3,030,273) in view of Duccini et al. (EP 0812905 A2).

Applicant's claims have been described *supra*.

Zagnoli teaches "plastic tablet coatings" in which the film-forming materials useful in coating formulations include, acrylic polymers and copolymers such as methacrylate, methymethacrylate, methymethacrylate/methacrylic acid, methacrylate/methacrylic acid, acrylate/ methymethacrylate, methylacrylate/methylmethacrylate (column 2, lines 44-50). Methylmethacrylate is an alkyl(meth)acrylate.

Zagnoli teaches a method of making a "plastic tablet coating" comprising the steps of forming the liquid coating composition, applying the liquid coating composition to a medicament in a rotating coating pan, allowing the solvent from the liquid formulation to evaporate (i.e. drying the film), and reapplying said liquid composition. This procedure is repeated until films having the desired thickness are obtained (column 2, lines 55-62).

Zagnoli teaches that plasticizers are used to render the film coating "more flexible" to overcome any brittleness of the coating. Suitable plasticizers taught by Zagnoli include mineral oil, castor oil, polyhydroxy compounds such as polyethylene glycol 200, 300, or 400, propylene glycol, glycerine, and the like.

Zagnoli does not teach degree of neutralization of film-forming polymers having carboxylic functional groups, the use of an excess of neutralizing base in a method of coating an

effervescent tablet, and does not explicitly teach the glass transition temperature (T_g) ranges of the film-forming polymers used in his formulations.

Duccini et al. teaches detergent tablets comprising at least 50 wt% of a non-phosphate builder and from 0 to 20 wt% of a phosphate builder, and has incorporated therein as binder from 0.3 to 5 wt% of a neutralised polymer of hydrophilic or hydrophobic monomers which have a glass transition temperature (T_g) of from 40 to 120 °C, which monomers comprise (meth)acrylic acid, maleic anhydride, hydroxyalkyl(meth)acrylic acids, alkyl (meth)acrylates, alkylhydroxy (meth)acrylates, alkyl (meth)acrylic acids or styrene (abstract and page 2, lines 37-43).

Duccini implies the equivalency of the polymeric binding agents and film-forming polymers (page 2, lines 13-15).

Duccini teaches that it is necessary for the polymer to be neutralized for it to be soluble (page 2, line 55).

Regarding the limitations of claim 8 requiring an excess of neutralizing base when coating effervescent tablets, Applicant needs to show the criticality of using an excess of base, wherein the term “excess” implies that all the carboxylic functional groups of the film-forming polymer are neutralized. If all the acidic functional groups of the film-forming polymer are neutralized, then the use of excess neutralizing base is not critical in the coating of effervescent tablets.

It would have been obvious to a person of ordinary skill in the art at the time of the instant invention to combine the teachings of Zagnoli and Duccini to obtain the tablet coatings of the instant invention, because both Zagnoli and Duccini utilize similar film-forming polymers in

Art Unit: 1616

their tablet formulations. Because Zagnoli and Duccini suggest the use of similar film-forming polymers and Zagnoli suggests the use of plasticizers to alter the "brittleness" of the coating (i.e. alter the coatings's T_g), it would have been obvious to a skilled artisan that routine optimization of Zagnoli's formulations would have yielded film-forming polymers having a T_g between 40-120 °C. One would have been motivated to use Zagnoli's medicament tablet formulations to coat detergent tablets because they are comprised of film-forming polymers known to form coatings. A person of ordinary skill in the art at the time of the instant invention would have had a reasonable expectation of successfully forming a water-soluble coating upon the neutralization of the acidic carboxylic functional groups of the film-forming polymers of the prior art, because these polymers have been shown to form films (i.e. coatings) and Duccini taught the necessity of neutralization to obtain water-soluble coatings.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent No. 5,922,661 in

Art Unit: 1616

view of Campbell, Ian (*Introduction to Synthetic Polymers*, Oxford University Press: New York, 1994, pp 148-150).

Independent claim 1 of the instant application is drawn to a water soluble tablet coating comprising (a) at least one film-forming polymer having acidic functional groups and a degree of neutralization ranging from 30 to 100 percent, based on the weight of the polymer; and (b) at least one film modifying agent.

Dependent claims 2 and 3 of the instant application further limit claim 1 by requiring that (a) the film forming polymer is made from one or more monomers selected from the group consisting acrylic acid, methacrylic acid, itaconic acid, and hydroxyalkyl(meth)acrylic acid, maleic acid, alkyl(meth)acrylates, hydroxyalkyl(meth)acrylates and styrene (claim 2); and (b) wherein the T_g of the film-forming polymers ranges from 35 to 120 °C.

Independent claim 1 of U.S. patent No. (U.S.P.N.) 5,922,661 is drawn to detergent tablets comprising at least 50 wt. % of a non-phosphate builder and from 0 to 20 wt. % of a phosphate builder, having incorporated therein as binder from 0.3 to 5 wt. % of **a neutralized polymer** having a glass transition temperature (T_g) **of from 40 to 120 °C** and a weight average molecular weight of from 10,000 to 120,000; wherein the polymer comprises monomeric units of 52.5 wt % **methyl methacrylate**, 29.5 wt. % butyl acrylate and 18 wt. % **methacrylic acid**. Dependent claim 4, limits the polymer T_g to range of between 40 and 100 °C.

U.S.P.N. '661 lacks at least one film-modifying agent, such as plasticizers.

Campbell teaches the use of plasticizers to modify the glass transition temperature (T_g) of poly(vinylchloride) (PVC) and other polymers (pp 148-150).

It would have been obvious to a person of ordinary skill in the art at the time of the instant invention that the film-forming polymers of the instant invention encompass the binders of U.S. P.N. '661. A skilled artisan at the time of the instant invention would have known that plasticizers could be used to modify a polymer's Tg to obtain a polymer with desirable properties. Therefore, it would have been obvious to a person of ordinary skill in the art to combine the film-forming polymers (described as binders) in U.S.P.N. '661 with a film-modifying agent (e.g. a plasticizer) to obtain the claimed invention of claims 1-3 of the instant application. A skilled artisan would have had a reasonable expectation of successfully using a plasticizer to modify a polymer's Tg, because this is a well-known use of plasticizers.

It is noted that terms binders and film-forming polymers are considered synonymous- see Duccini et al. (EP 0812905 A2).

Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent No. 5,883,061 in view of Campbell, Ian (*Introduction to Synthetic Polymers*, Oxford University Press: New York, 1994, pp 148-150).

Independent claim 1 of the instant application is drawn to a water soluble tablet coating comprising (a) at least one film-forming polymer having acidic functional groups and a degree of neutralization ranging from 30 to 100 percent, based on the weight of the polymer; and (b) at least one film modifying agent.

Dependent claims 2 and 3 of the instant application further limit claim 1 by requiring that (a) the film forming polymer is made from one or more monomers selected from the group consisting acrylic acid, methacrylic acid, itaconic acid, and hydroxyalkyl(meth)acrylic acid,

Art Unit: 1616

maleic acid, alkyl(meth)acrylates, hydroxyalkyl(meth)acrylates and styrene (claim 2); and (b) wherein the T_g of the film-forming polymers ranges from 35 to 120 °C.

Independent claim 1 of U.S. patent No. (U.S.P.N.) 5,833,061 is drawn to detergent tablets which comprises at least 50 wt % of a non-phosphate builder and from 0 to 20 wt % of a phosphate builder, having incorporated therein as binder from 0.3 to 5 wt % of a neutralised polymer of hydrophilic or hydrophobic monomers which have a glass transition temperature (T_g) of from 40 to 120 °C, wherein the polymer comprises 47 wt % methyl methacrylate, 25 wt % butyl acrylate, 18 wt % methacrylic acid, and 10 wt % hydroxyethylmethacrylate, the polymer having a weight average molecular weight of from 10,000 to 120,000. Dependent claim 4, limits the polymer T_g to range of between 40 and 100 °C.

U.S.P.N. '061 lacks at least one film-modifying agent, such as plasticizers.

Campbell teaches the use of plasticizers to modify the glass transition temperature (T_g) of poly(vinylchloride) (PVC) and other polymers (pp 148-150).

It would have been obvious to a person of ordinary skill in the art at the time of the instant invention that the film-forming polymers of the instant invention encompass the binders of U.S. P.N. '061. A skilled artisan at the time of the instant invention would have known that plasticizers could be used to modify a polymer's T_g to obtain a polymer with desirable properties. Therefore, it would have been obvious to a person of ordinary skill in the art to combine the film-forming polymers (described as binders) in U.S.P.N. '661 with a film-modifying agent (e.g. a plasticizer) to obtain the claimed invention of claims 1-3 of the instant application. A skilled artisan would have had a reasonable expectation of successfully using a plasticizer to modify a polymer's T_g, because this is a well-known use of plasticizers.

It is noted that terms binders and film-forming polymers are considered synonymous- see Duccini et al. (EP 0812905 A2).

Conclusion

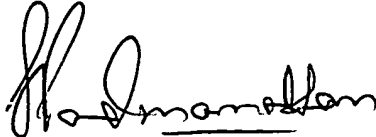
Claim 4 and the specification are objected due to minor informalities and the improper use of trademarks, respectively. Claims 1-10 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Alstrum-Acevedo whose telephone number is (571) 272-5548. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on (571) 272-0887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James H. Alstrum-Acevedo, Ph. D.


SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER